

Virginia Water Resources Workshop



What Do You Need To Know About Your Water Supply And The Environment To Develop A Good Water Supply Plan?

Presented by:

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Part 1

Integrating the Environmental Component

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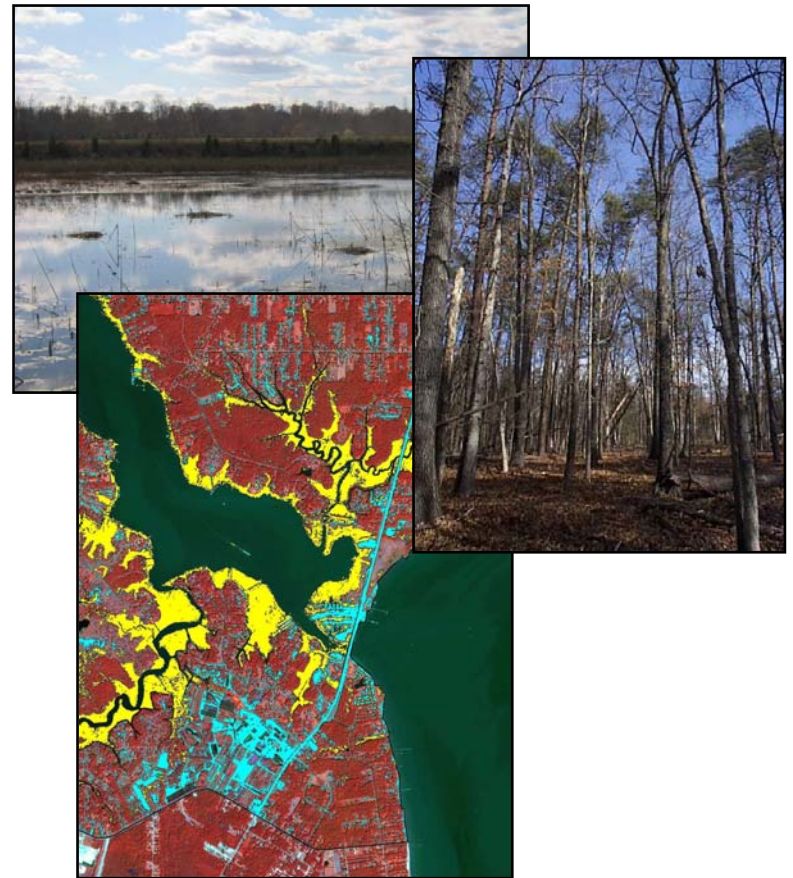
Manager, Water and Natural Resources



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Purpose of the Presentation

- To provide insight on important considerations, as well as benefits of developing a plan that fully considers a realistic plan boundary, and incorporation of environmental concerns during the planning process.





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What Does a Local or Regional Plan Mean From an Environmental Perspective?

- What are your water resource boundaries from an environmental perspective?
- Watershed boundaries or non-watershed boundaries.
- Watershed boundaries don't imply the creation of a watershed plan.





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What Boundary Makes the Most Sense From an Environmental Perspective?

- For surface water withdrawals, watershed or subwatershed boundary may make the most sense.
 - Provides a strong rationale to look at environmental consequences.
 - Fits with what the State will be doing in developing comprehensive watershed or river basin plans.





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What Boundary Makes the Most Sense From an Environmental Perspective?

- For groundwater withdrawals, subaquifer or more localized area may make the most sense.
 - Determine what area of the aquifer may be influenced by project.
 - Regional plans would include a larger area of the aquifer.



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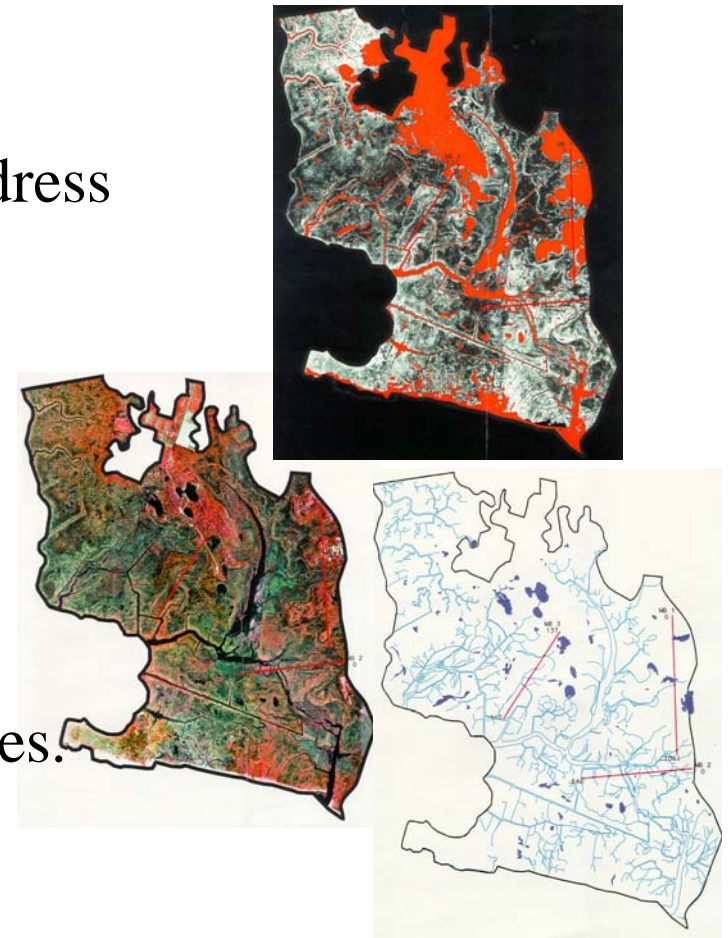




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Why is it Important to Think About the Water Supply Plan Environmental Boundaries Early on?

- Provides a framework on which to address environmental constraints.
- Evaluate planning and/or project alternatives relative to those constraints.
- Minimizes late surprises resulting from not understanding your boundaries.

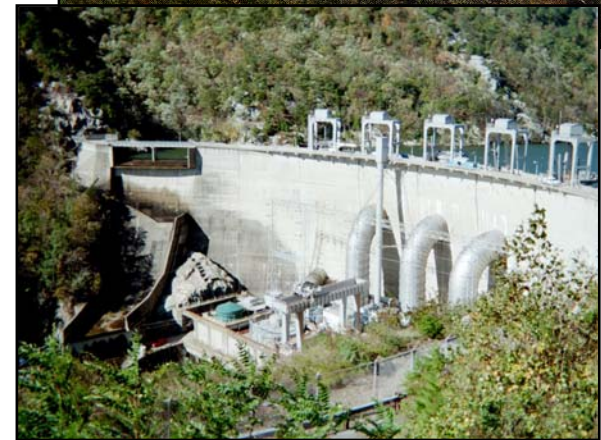




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Why Regional Plans May Be the Best Approach in the Long Run

- The local planning process and the State Plan process is iterative and will be refined with new information as local plans are developed.
- Regional plans will help coordinate alternatives being investigated on the same watershed to avoid redundant plans.





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Why Regional Plans May Be the Best Approach in the Long Run *(Continued)*

- DEQ plans to develop planning level flow targets and rudimentary groundwater budgets that can best be addressed through regional plans.
- Sharing of environmental information will reduce cost.
- Public support.





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Integrating the Environmental Component in the Plan Development Process

- A common mistake is to move the engineering and financial evaluations to a final point, prior to considering the environmental constraints.
 - Leaves little flexibility to incorporate environmental considerations in alternatives;
 - Can result in having to change course late in the game if a significant issue is identified;
 - Will fit better with the expectations set forth in the regulation;
 - Can develop public support or better stand up to public scrutiny.





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Environmental Components Required to be Evaluated

- The Regulation lists ten environmental factors that have to be evaluated for each water supply plan. However, the degree to which these factors have to be evaluated may vary.
 - State or Federal listed RTE species or habitats of concern;
 - Anadromous, trout, and other significant fisheries;
 - River segments that have recreational significance or state scenic river status;





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Environmental Components Required to be Evaluated (*Continued*)

- Sites of historical or archaeological significance;
- Unusual geologic formations or soil types;
- Wetlands;
- Land use and land coverage including items such as percentage of impervious cover within a watershed and areas where new development may impact water quality of the source;



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Environmental Components Required to be Evaluated (*Continued*)

- The presence of impaired streams and the type of impairment;
- The location of point source discharges and;
- Potential threats to the existing water quantity and quality other than those factors listed above.





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Importance of Defining Your Plan Boundaries Relative to Addressing These Areas

- If you do your homework on the environmental attributes in the area impacted by your plan, significant financial benefits can be realized.
- The level of detail included in the plan for each of these areas will be directly related to the significance of that resource as related to your plan boundaries.





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Example

- If it is known that an RTE species (instream or riparian) may occur within the plan boundaries, a much more detailed impact evaluation would be required, compared to an area that has no RTE species.

Benefits of Incorporating Environmental Considerations in Your Planning Process

- Difficult to balance the short term cost with long term benefits.
- Your plan will be better, increasing your chance of rapid approval.
- Approval with less negotiations; ancillary studies will save time and money.
- Avoids the shotgun approach of evaluating all resources with the same amount of effort.

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Summary of Helpful Hints

- Consider environmental factors early in the planning process.
- Do your homework on the important issues in your watershed.
- Be prepared to consider alternatives to reduce environmental impacts.
- Involve the stakeholders in the planning process.





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Part 2

Involving the Public

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Watershed Perspective

- Increasing competition for water
- Increasing interdependence
 - Upstream users affect downstream
 - Groundwater use affects surface water
 - Surface water use affects groundwater
- The public wants a voice in decision making and implementing projects

Communication Pitfalls

- Professional bias
 - What information is important to solving problems?
 - What values are relevant to a decision?
 - Which options are appropriate?
- Community has bias also!



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Principles for Positive Public Involvement

- Manage information well for all
- Maintain motivation and commitment
- Promote communication and public dialogue
- Ensure fair and sound decisions
- Build and maintain trust with public

Variety of Approaches to Involving the Public

- Spectrum of public participation approaches – *Inform to Empower*
- Goals range from – *Providing Information to Decision Making Opportunities*
- Agreement is needed
- Range of Tools and Techniques available



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Participation Goal

IAP2 Public Participation Spectrum

Developed by the International Association for Public Participation

INCREASING LEVEL OF PUBLIC IMPACT

INFORM	CONSULT	INVOLVE	COLLABORATE	EMPOWER
Public Participation Goal:	Public Participation Goal:	Public Participation Goal:	Public Participation Goal:	Public Participation Goal:
To provide the public with balanced and objective information to assist them in understanding the problem, alternatives, opportunities and/or solutions.	To obtain public feedback on analysis, alternatives and/or decisions.	To work directly with the public throughout the process to ensure that public concerns and aspirations are consistently understood and considered.	To partner with the public in each aspect of the decision including the development of alternatives and the identification of the preferred solution.	To place final decision-making in the hands of the public.



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Promise to the Public

IAP2 Public Participation Spectrum

Developed by the International Association for Public Participation

INCREASING LEVEL OF PUBLIC IMPACT

INFORM	CONSULT	INVOLVE	COLLABORATE	EMPOWER
Promise to the Public:	Promise to the Public:	Promise to the Public:	Promise to the Public:	Promise to the Public:
We will keep you informed.	We will keep you informed, listen to and acknowledge concerns and aspirations, and provide feedback on how public input influenced the decision.	We will work with you to ensure that your concerns and aspirations are directly reflected in the alternatives developed and provide feedback on how public input influenced the decision.	We will look to you for direct advice and innovation in formulating solutions and incorporate your advice and recommendations into the decisions to the maximum extent possible.	We will implement what you decide.



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Techniques to Consider

IAP2 Public Participation Spectrum

Developed by the International Association for Public Participation

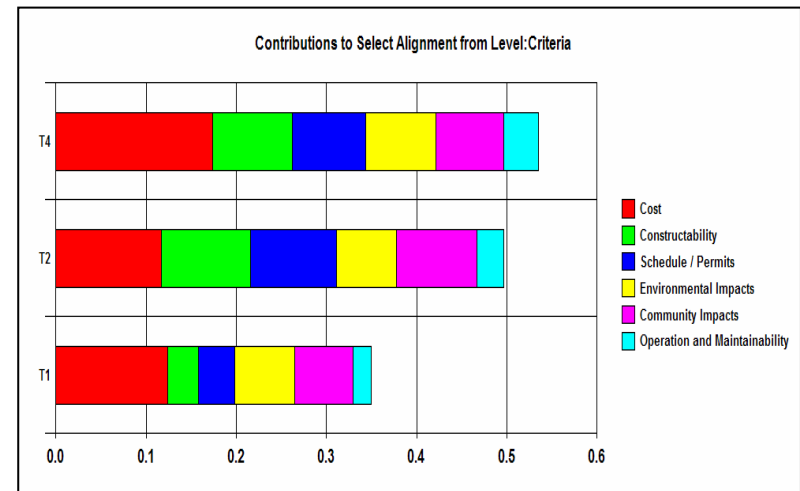
INCREASING LEVEL OF PUBLIC IMPACT

INFORM	CONSULT	INVOLVE	COLLABORATE	EMPOWER
Example Techniques to Consider:	Example Techniques to Consider:	Example Techniques to Consider:	Example Techniques to Consider:	Example Techniques to Consider:
<ul style="list-style-type: none">● Fact sheets● Web sites● Open houses	<ul style="list-style-type: none">● Public comment● Focus groups● Surveys● Public meetings	<ul style="list-style-type: none">● Workshops● Deliberate polling	<ul style="list-style-type: none">● Citizen Advisory Committees● Consensus-building● Participatory decision-making	<ul style="list-style-type: none">● Citizen juries● Ballots● Delegated decisions

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Example Tools and Techniques

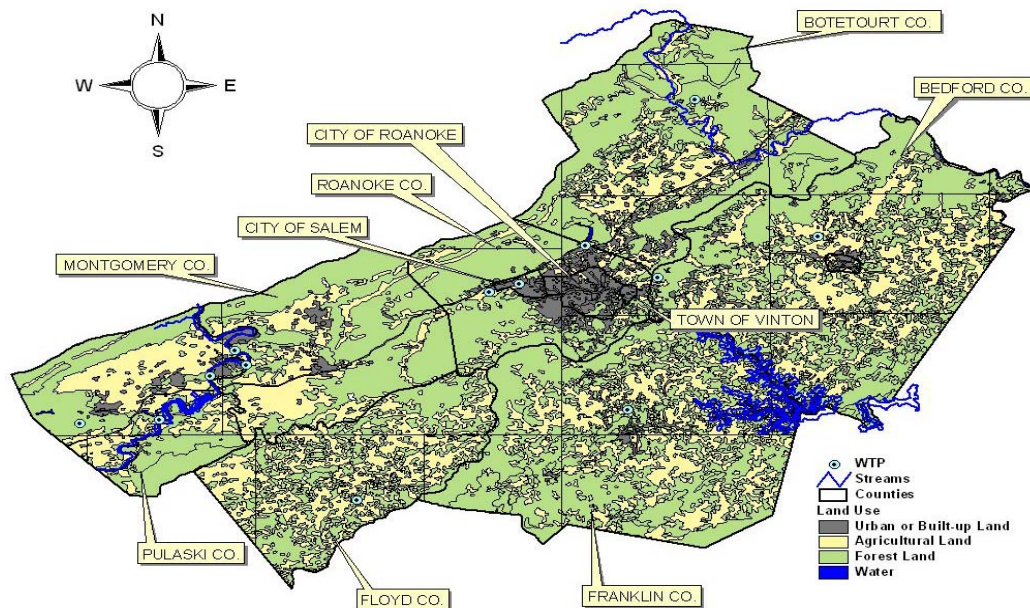
- Paper and Web-based information
- Meetings and Workshops
- Visualization tools – Keyhole
- Decisionmaking tools – Decision Criterium Plus



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Example 1: Inform / Consult

- Long-Range Water Supply System Study
- Public presentations of project progress, findings
- Documents available for public comment



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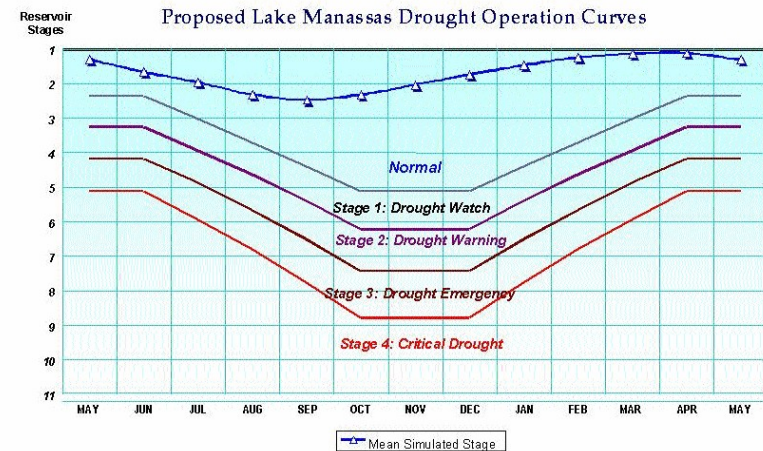
Example 2: Involve

- River intake and pumping station
- Stakeholder meetings and “voting”
- Input to design of structures



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Example 3: Collaborate



- Water Supply Advisory Task Force
- Standing committee members from community, business, utility, and city management
- Role in Drought Contingency Plan





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Example 4: Collaborate / Empower

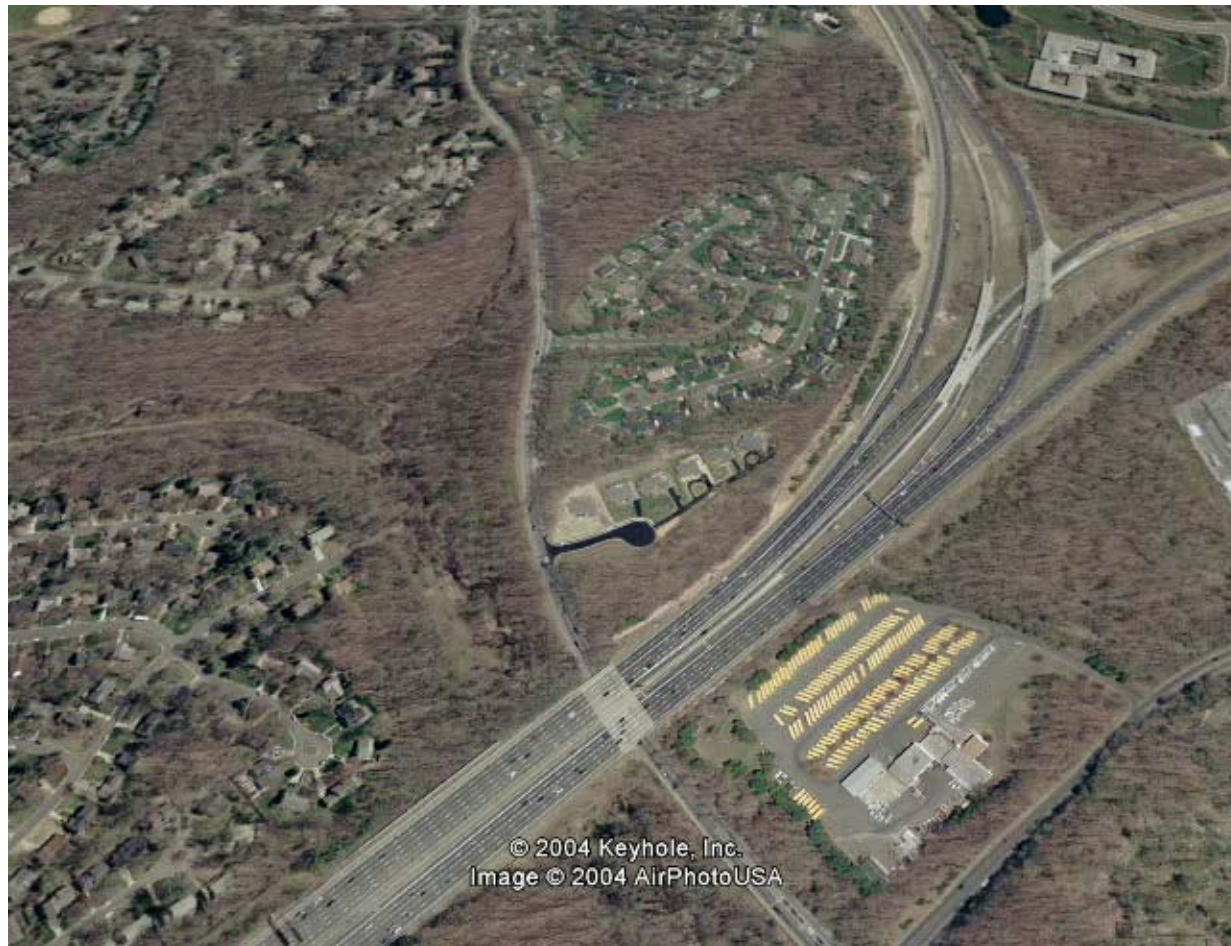
- Pipeline Alignment Study
- Policy Review Group, Citizen Advisory Committee
- Interactive Decisionmaking Workshops

Montgomery  Prince George's
The Clean Water Connection
WSSC'S BI-COUNTY WATER SUPPLY MAIN STUDY



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Visualization Aids





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Value of Public Participation

- Satisfy requirement of legal or institutional process
- Identify potential obstacles to project implementation early
- Develop project advocacy
- Develop trust with public – that extends beyond a specific project
- Save time and resources

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